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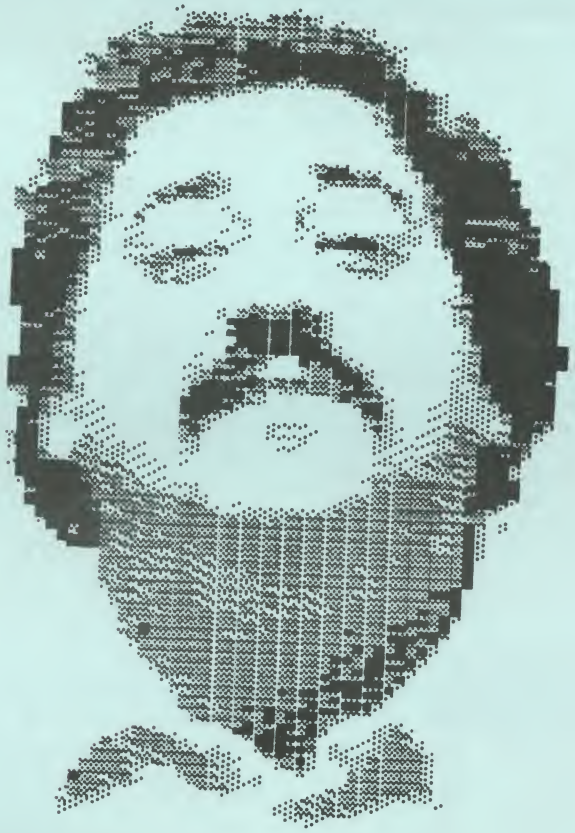
JANUARY, 1986
VOL. 6, NO. 1

M.A.C.E. JOURNAL

"Devoted Exclusively To The Atari Computer User"

NOW YOUR ATARI HAS EYES!



ALSO IN THIS ISSUE:

Published by the Michigan Atari Computer Enthusiasts

"Y" = CHAT MODE

Welcome to 1986. A new year means a new beginning. In our case, the beginning of the plan to expand the MACE-supported BBSystem to six boards by the end of '86. The first new board, in the "Ann Arobr" area, is planned to be up and running by March 31st. The search for a SYSOP will begin with a review of those who have alrady expressed an interest, have the technical knowledge required, and are willing to accept the responsibility for the equipment and for maintaining the standards of a club-run, computer based information, message and retrieval system.

Parallel with the establishment of the Ann Arbor board, we will begin to upgrade one of the current MACE boards to a state-of-the-art BBSystem by making some hardware changes. Because the new 520ST can support a hard drive and is in itself an Atari flagship, it would be a good host computer for the new MACE Main. Add a 2400 baud modem, some software changes, and some "members only" areas, and you've got it. Completion of all the changes is scheduled for the end of the year (IRS willing & with your continued support).

A last item: Val World Gazette, a publication for Epson QX-10/16 owners, featured the Atari 520ST in its October/November '85 issue. The reason? Rising Star Industries, authors of the integrated software package Valdocs for Epson computers, will be converting some of their programs for the ST. Of note will be their ValDraw and ValPaint graphics programs. With third party involvement, the Atari series computers should be around for a while.

Bye... Alva

ABOUT THE COVER...

Would you buy a used disk from this man? How about a new one? Yes, gang, it is Dave Zappa, MACE Disk Librarian, who graces our cover this month. He created this masterpiece with Computereyes - don't miss his review.

MANY THANKS

We would like to thank our many advertisers and supporters who donated door prizes for the December meeting:

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Remember these MACE friends when you go shopping for your computer supplies, and be sure to mention that you saw their ads in the MACE Journal.

The MACE Journal is published monthly by the Michigan Atari Computer Enthusiasts. Unless otherwise noted, material published in the Journal is in the public domain and may be reproduced for private or user group use providing proper credit is given.

Submissions to the Journal can be mailed to the PO Box, uploaded to the MACE BBSs, any officer's BBS, or sent directly to the editor. Where possible, submissions should include a disk or tape file in AtariWriter or similar format and a working copy of the program. Specify format for screen dumps (AtariArtist, Koalapad, etc.). Authors whose submissions are published will be entitled to a certificate good for a free disk or tape from the MACE library. Deadline for submissions is the first of each month.

PLEASE NOTE!

When you call a manufacturer or retailer about a product or service you have seen advertised in the Journal, please tell them so. This will help us to continue to bring you the latest information on software and hardware that will make your Atari computer an even more valuable investment to you in the future.

-Advertising Department -

COMPUTEREYES

Digital Vision

Reviewed by Dave Zappa

[Dave Zappa is the MACE Disk Librarian and Sysop of "THE FREEDOM BOARD BBS". He can be contacted on his BBS by calling (313) 771-4126 and leaving a message. -Ed.]

Unless you've just come out of a long deep coma, you probably know what Computereyes is, and what it does. This hardware/software combination does for an Atari what paint did for Rembrandt. If you own an Atari, chances are you're a graphics and video lover to begin with, and armed with this new product you will most likely O.D. (like I did) on the quality and the ease of use this product provides.

Very simply put, Computereyes by Digital Vision takes any standard video input and converts it to a digitized picture file. This file can be manipulated in various ways to suit any need. Pictures can be saved in the Koala format, then loaded into any of the Koala programs to be changed, cleaned up, customized, or whatever you want. Then of course, this file can be changed to any picture format by using any of the conversion programs that are available in the public domain. (See MACE disk library.)

The best part of the whole process for me was dumping the file through a print program. As you can see from the examples, it does a super job. If ever there was a reason to buy a video camera and a dot matrix printer -- this is it!! A mere 20 minutes after opening the box, I was capturing and saving picture files. The documentation is very straightforward and leaves no questions unanswered. The program is written in BASIC with machine language subroutines, and the disk is not protected. These two features allow the curious to take a close look at how the program works, and the purchaser can create as many back-ups as he wishes. Of course the hardware portion of the product can't be backed up, but it is constructed very sturdily and consists of a box slightly larger than a cigarette pack. The box is connected to the Atari via the two joystick ports. The only other connection to be made is a video input. Once a video source is established and the program is running, two easy adjustments (video sync, and brightness) made through the knobs on the Computereyes box are all that is needed. This product is one of the very few that live up to their claims. Check it out!! Don't let the price (around $100) scare you off.

I also highly recommend using the program "Megafont II+" by the same company. This is a premier printer program which allows picture files to be printed in regular, inverse, full page, half page, and quarter page format. These two programs are written the way all great programs should be! easy to use, menu driven, with help files and great documentation. I can't say enough about this great product.

To sum it up----"SUPER"!!

NEW USER FORUM

By Tom Sturza

DOS 2.0, DOS 2.5, AUTORUN.SYS, MENU programs, BASIC, binary, Atari Writer, AMODEM, BBS's, SIG's, MACE info, and Question & Answer sessions. During 1985, all of these topics were covered at MACE New User Forum meetings. The first Forum meeting was held in June, and the last meeting of 1985 was held in November.

I can honestly say that we have met our objectives. We have shown MACE members how to use their Atari Personal Computers, and what additional things they can do besides playing games. Also, we have provided copies of DOS 2.0 and 2.5 to those who required it, as well as documentation and training in its use.

Hopefully, by the time you read this, the City of Southfield will have approved our applications for January through June 1986 meeting dates. We've requested the following dates in 1986:

Tentative schedule
January 27th - Getting started
February 24th - DOS 2.0 and 2.5
March 24th - Word processing
April 28th - Intro to BASIC
May 27th - AMODEM & BBS's
June 23rd - to be announced

Where: Southfield Civic Center Parks & Recreation Meeting Room (probably room 223)

When: The 4th Monday of each month (except May)

Time: 7:30 - 9:30 P.M.

Who: New users who wish to learn about using their Atari computers

Meetings are sponsored by MACE, and therefore are open to members ONLY. Membership applications will be available at these meetings. If you have any questions or would like to see something special covered at one of these meetings, please call Tom Sturza, between 6-10 P.M., at (313) 477-2345.

GREETINGS FROM YOUR (acting) EDITOR...

The more things change... yes, folks, here I am, the latest Feature Selection in the Editor of the Month Club. This month's Journal was actually produced through the combined efforts of the MACE officers - they just let me back in because I can spel.

There has been some discussion lately about the size of the Journal. MACE's membership seems to be hovering at around 800 families, down from the high several years ago of 1400. We've cut back costs where we can in the production of the Journal (new printer, less expensive paper, more effort on the part of volunteers in terms of labelling and delivering to the Post Office), and Mike Mitchell has done a fantastic job drumming up advertising support for us, but there are those (boo, hiss) who feel that an 800 member club can't continue to support issues of the size I would like to publish. My feeling is that the Journal is the only way we have of reaching all of our members, and that the members deserve more than a little newsletter filled only with club news and reprints from other sources. MACE is a strong force among Atari user groups; I feel that the Journal should be a leader among user group publications.

So what do you think? Drop a note in the Suggestion Box, call up one of the officers, write a note to the PO Box, hire a sky-writer - whatever it takes. How do you want the club revenues spent?

By the way - if you do want to continue having a 32 page Journal, send more than a note expressing your feelings; send an article or program. Better yet, volunteer to do a regular (once a month, or even every other month) column on your favorite topic. Do you have experience with cutting and pasting? Would you be willing to deliver the leftover Journals to the Post Office after each meeting? Now, more than ever, we need your help to keep this publication going.

-Ann

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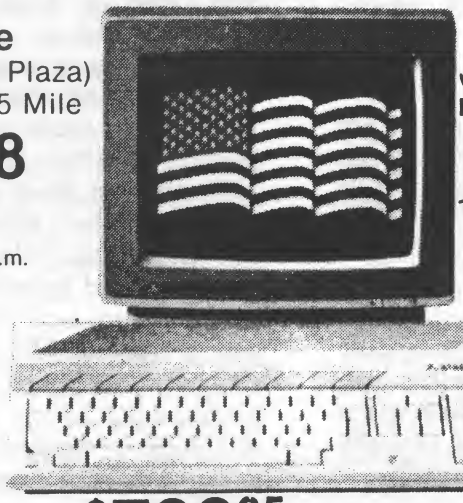

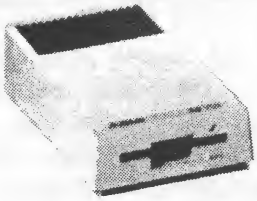

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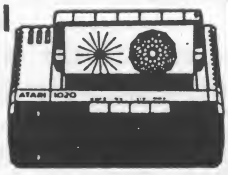

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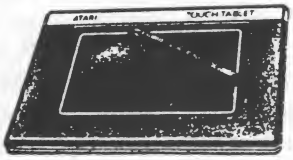

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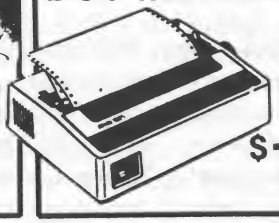

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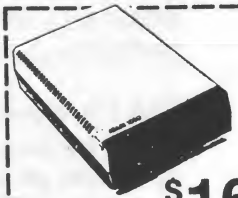

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THE WIZARDS OF OSS

By Ann McBain Ezzell

If you've ever used your Atari computer for more than a paperweight, chances are that you have used one of the fine products of Optimized Systems Software, Inc. For longer than many of us have owned our machines, the folks at OSS have been turning out high quality software that has made using and programming the Atari a much more rewarding experience than it might otherwise have been. I recently had the good fortune to spend some time at their office in San Jose, and I thought that you might like a peek behind the scenes.

I must say that I expected to find the headquarters of a software powerhouse like OSS in a sprawling office complex, with acres of concrete and lawn sprinklers. Instead, they're nestled in a little shopping mall, between a post office and a travel agency. They have six or seven rooms, with (what else?) computers, manuals and bright yellow boxes everywhere. All the comforts of home.

I spoke first with President Mike Peters, who gave me a brief history of the company and its founders. In the late '70s, Bill Wilkinson, Mike Peters, Mark Rose and Paul Laughton worked for Shepardson Microsystems, writing custom products such as a Cromemco C compiler and 16K BASIC and the initial Apple II DOS. In 1978, they wrote the original versions of Atari BASIC, DOS 2.0 and Assembler. When Shepardson Microsystems went out of business, Bill got the company's rights to those three Atari products.

Bill, Mike, Paul, Bev Wilkinson and Cathy Laughton formed a partnership whose first works were improvements to those products: BASIC A+, OS/A+ and EASMD (Editor Assembler Debugger). These were introduced at the 6th West Coast Computer Faire in March of 1981. In July of that year Optimized Systems Software, Inc. was formed, with Bill as President. Bill and Bev were full time, while Paul and Mike had other jobs and worked for OSS part time. Eventually, Paul moved on to work for Atari. Mark Rose, who was still in school, did some side work for OSS.

In the fall of '82, Mike Peters joined the staff full time as "Vice President or something" - doing whatever needed to be done. Mark Taketa, who is now Marketing Sales Director, started in the shipping department in October. Bob Spahr acted as President for about six months in 1983, then left, and things more or less settled down with President Mike Peters handling the financial dealings and Vice President Bill Wilkinson in charge of software research and development. Mark Rose (still in school) was working on DOS XL. Somewhere along the line (I neglected to ask when), Mike Fitch also joined the staff and has been responsible for, among other things, the ACTION! manual and answering dumb questions from frustrated programmers.

OSS's "second generation" of products came out in 1983: Clinton Parker's ACTION! in August, Steve Lawrow's conversion of EASMD to MAC/65 in October, and Bill Wilkinson's BASIC XL in December. These products were released in cartridge form primarily for copy protection, but also because of the extra memory available in bank-selected cartridges, and because of their ease of use. Their success led to the release of "toolkits" (utilities to aid the user) and other products. At one point, the staff was up to 14 people.

When Atari sales started slipping, things slowed down for OSS. They reconsidered the 8-bit market and began looking at products for the ST (including a BASIC for Atari which never came to be). While they will continue to support the 8-bit machines as before with utilities and languages, they are currently hard at work on three new products for the ST.

Steve Lawrow's Personal DiskKit, due out in December, will be a standard set of disk utilities to "examine, repair, and modify any GemDOS (TOS) diskette". Also due in December is Personal Pascal, converted by Mark Rose (who apparently has finally gotten out of school) from a German product originally written in the C language for a DEC machine.

The third member of OSS's ST line will be Paul Laughton's Personal Prolog, due to be released in the first quarter of '86. If you thought ACTION! was a weird language, wait

until you see this one! I was treated to a guided tour of a beta version by none other than Bill Wilkinson himself, and my eyes are still glazed. First of all, forget about the difference between program and database - they are one and the same. According to Bill, there are three main elements to a Prolog "program": rules, facts, and questions. You define some rules, declare some facts, ask one or more questions, and that's that. (Well, not quite, but close enough for now.)

Let's see if I can reconstruct one of the simple programs I saw, called "Relationships". The rules part of this program consists of definitions of relationships like "a father is someone who is male and who has a child", "a wife is someone who is female and who is married" (using correct Prolog syntax of course, which I won't even attempt to reproduce). Facts such as "Harry is Fred's father" and "Susan is Joe's wife" are declared, then the user can ask questions like "Who are Marianne's siblings?" - and get an answer! (Remember those word problems in Reader's Digest that said: "The man in the green house lives next to the woman who drinks Classic Coke. The woman with the red raincoat lives two houses away from the man who eats bananas....Who owns the zebra?"? Very much the same sort of thing.)

Of course, there's much more to Personal Prolog than figuring out the seating arrangements for your next dinner party. This "Fifth Generation" language has been around since the early '70s and has powerful artificial intelligence and problem solving capabilities. (I also saw a program which figured out how to rearrange some blocks given starting and ending positions.) It provides excellent natural language parsing (good for text adventure games, but don't mention that around the OSS office); it can also be used for "expert systems" such as those used for medical diagnosis. It is capable of parallel processing, and the Japanese are using it to write operating systems. If you're a computer language junkie, it might be worth buying an ST just so you can play with Prolog.

(I hate to mention this, but in fairness I must tell you that you don't really have to buy an ST to use Personal Prolog or Personal Pascal - OSS will also be releasing versions for the Apple MacIntosh. At present, they have no plans to support the Amiga because of its high price.)

For now, these products will be available only on ST disks rather than cartridges, because of the additional time required to prepare a cartridge product for release. Furthermore, the disks will not be copy protected, because OSS feels that a crashed language disk would be too devastating to the user, and a copy protection scheme would take up too much of the available disk space. They feel that the size of the documentation will probably be the limiting factor in piracy control.

The two languages will list for $89.95; the disk utilities for $39.95. However, in keeping with its past record of user group support, OSS has special introductory prices for any member of a user group (just tell them the name of your group when you order): $66 plus $3 shipping for either language, and $29 plus $2 shipping for the utilities.

This is fine, I can hear you saying, but what about us 8-bit loyalists? What goodies has OSS got in store for us? Mike Peters was very definite about OSS's continued support of their existing 8-bit products. He said that supporting users is very important to OSS (and I can attest to that, having received both phone calls and letters in response to my questions about ACTION!). There is also the possibility of some new products, notably updated MAC/65 and ACTION! toolkits, and (be still, my heart!) an ACTION! tutorial!

The current 8-bit project is a revision of The Writer's Tool, OSS's excellent word processor (see my review in the October '85 MACE Journal). This new 16K supercartridge will be available in the first quarter of '86 and will make use of the 130XE's extra memory for something other than an enlarged text buffer, since they feel that a 64K document is too unwieldy. A couple of possibilities are an instant spelling checker accessed by a control key sequence or a "real" print preview. The new Writer's Tool will also run on the 64K 8-bit machines, but without whatever additional feature(s) they choose to fit into the 130XE's extra memory.

Some other changes which will (probably) appear in Version 3.0 include:

- a change in the way text is stored so that inserted text can be entered as quickly as you can type

- two independent windows into the same document (different from PaperClip's two windows for two documents)

- insertion of blocks of text from disk without destruction of existing text

- printing of a range of pages

- renaming of files on disk or in memory

- an on-line help window

- an artificial screen width of up to about 130 characters

Version 3.0 will also include a new manual. At this time, an upgrade policy has not been set, partly because it is so hard to please everyone - users, distributors, and dealers all have their own ideas as to what "fair" is.

Speaking of upgrades - according to Mike Peters, Version 4.11 of BASIC XE is "basically bug-free". Owners of 4.0 should send their cartridges and disks back for replacement at no charge. Mark the package "BASIC XE Update" and OSS will try to ship your upgrade within 24 hours. Bev Wilkinson holds the reins (also the boards, cartridges, glue, boxes, labels and shrink-wrap machine) in the shipping department; I have no doubts whatsoever that your new cartridge will be on its way before you even know the old one is gone.

So that's OSS - a few rooms, some computers, and a handful of people who really seem to enjoy putting out great products for the Atari. I'm glad I got a chance to visit them, and I wish I lived in San Jose so I could go down and bug them more often.

WRITER'S TOOL HINT

(Courtesy of Bill Wilkinson)

For users of single drive systems who want to link files from more than one disk: Use <E: <RETURN> and then <D:filename <RETURN> wherever you want to insert a file from disk. This makes the program wait for keyboard entry. It will display the message "Link Printing---E:" and stop. Put the appropriate disk in the drive, then hit CTRL-3 (End of File) to read in the designated file.

ACTION! RUNTIME/TOOLKIT XIO FIX

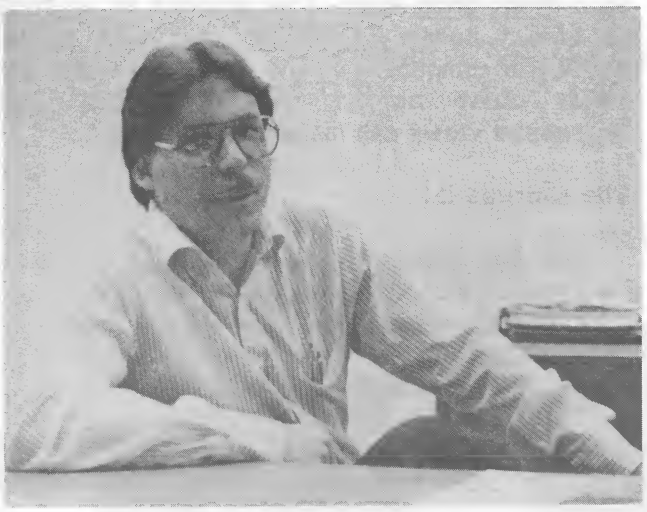
(Courtesy of Bill Wilkinson & Mark Rose)

In the course of writing an ACTION! program which was to be compiled with the RunTime Package, I discovered that the routines in the Toolkit file IO.ACT which use the XIO() procedure (Rename(), Erase(), Protect(), UnProtect() and Format()) will not work properly without the cartridge in place. Presumably, the same would be true for any routines you write which use XIO(). I presented this problem to Bill and Mark, who looked at the compiled code, did a little off the cuff disassembly, and promptly came up with a solution.

When you use the ACTION! library XIO() procedure in a program which will be compiled with the RunTime Package, tack a comma or some other nonvalid filename character onto the end of your filename, and things will be just fine. Some routine somewhere doesn't validate the filename when you are using the RunTime Package XIO routine.

You do know, don't you, about OSS's Bug Sheets? Send them a business sized, self-addressed stamped envelope, and they will send you a current list of known bugs for whichever product you specify. Write "ACTION! BUGS" or "MAC/65 BUGS" or whatever on the outside of the envelope you send to OSS.

SCENES FROM OSS



OSS PRESIDENT MICHAEL PETERS
DISCUSSING THE COMPANY'S FUTURE

VICE PRESIDENT
BILL WILKINSON
WAITING TO GET
HIS COMPUTER BACK

TWO FISTED R&D PROGRAMMER
MARK ROSE
DEMONSTRATING PERSONAL PROLOG

BEV WILKINSON
MAKING SURE YOUR CARTRIDGES
WON'T FALL APART

MARKETING SALES DIRECTOR
MARK TAKETA
CAUGHT AT THE BOSS' DESK

PHOTOS BY
A.M. EZZELL

THE PRINT SHOP FAMILY

By Tom Sturza

My family is the proud owner of Broderbund Software's Print Shop and Graphics Libraries 1 & 2. Other than games and AtariWriter, the Print Shop software gets the greatest use at our house.

We recently received the first copy of Broderbund News. This newsletter is a marketing device that Broderbund is now mailing to registered users of its products. It appears to be well done and we enjoyed reading about current and future products (six pages of information).

One article was about the Print Shop Family. In addition to the three items we already own, two new ones were announced: Graphics Library 3 and the Print Shop Companion. Disk 3 will contain "120 new graphics... including business graphics, international symbols, myth, fantasy, Christmas, and the four seasons."

In case you didn't know, Disk 1 provided 120 additional graphics for holidays, sports, school and astrology, while Disk 2 covered jobs, hobbies, people, places, travel and health.

The Print Shop Companion was what really struck a "go out and buy it" chord inside of me. It is an upgrade package for the original Print Shop software. The article mentions the following features: "12 new type fonts, 50 new borders, 18 drawing commands to create your own graphics, and the capability - on the Apple version - to work with a mouse".

The only problem is: Broderbund is ONLY going to bring out the Companion for Apple, Commodore 64 and IBM PC machines. OUCH, DOES THAT HURT!!!!!!!!

If you feel like the Sturza family, this will seem very unfair. There is a very large and loyal base of ATARI owners out there, and many of us own Print Shop. Let's all express our feelings! Take the time now and write a brief note to Broderbund. (We may send ours as a Print Shop sign). The address to write to is shown below. Let's do our part to let software companies know what we want and need. Just as in running MACE, your expressed views can make a difference.

The address is:

Ms. Ann Kronen
Product Manager
c/o Broderbund News
P.O. Box 12947
San Rafael, CA 94913-2947

Their phone number is (415) 479-1185 if you wish to call, but they won't accept collect calls.

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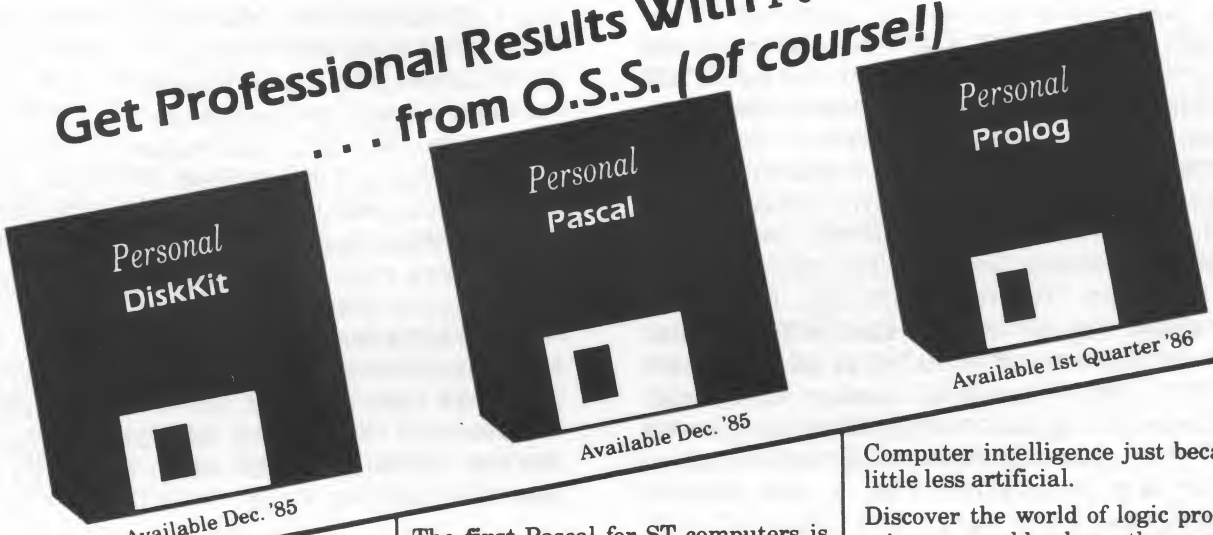

Available Dec. '85 — Available Dec. '85 — Available 1st Quarter '86

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THE HITCHHIKER'S GUIDE TO THE GALAXY

(Don't Panic!)
Infocom

Reviewed by Gordon Totty

Actually, I am Arthur Dent, an alter-ego who took over my personality after I paid $27.95 for this software. It didn't happen right away, doctor. No, for a couple of weeks I was still Gordon, but perhaps more frustrated than usual. Then, slowly at first, I entered the world of this wimp, Arthur Dent, and met his improbable friends - chaps like Ford Prefect who was born "far out" (actually, in another galaxy) and the distinctive Zaphod Beeblebrox (most distinctive in the fact that good old Zaph has more than the usual number of heads). Finally, and I remember this clearly, I awoke at 11:00 in the afternoon of October 37th to the terrible realization that I had become Dent(ed).

But, back to the beginning and in the beginning there was darkness. As the character in this "interactive fiction" you awake in darkness, pitch black. After you let there be light, find something to put on, perhaps even brush your teeth, you notice that your home is about to be bulldozed to make room for a new highway. Think you've got it tough, Bunkie? That's nothing; the earth is about to be demolished to make way for a new hyperspace bypass! And I imagine that while all this is going on, some ant is worried that his hill is about to be pushed aside for a new mole tunnel - ain't life funny? Well, do the best you can, and for a good long while the best you can do with this story isn't going to be good enough. I lost count of how many times I was "killed" in this story before, out of rage and frustration, I asked a friend for a tip or two to get going. Now, having fooled with it for about three weeks, I love it and highly recommend it to all. Let's look it over.

I am 20th century marketing's child. Good advertising and good packaging go a long way toward selling me something. The advertising I have seen for this story is provocative, attention grabbing, and full of humor. The hook was set, and I was reeled in to the store. Nice colorful box, too. And what a joy within! This thing comes with:

a packet of fluff
(stick it in your navel)
destruct order for your home
(read it and weep)
destruct order for your planet
(I defy you to read this)
a "DON'T PANIC!" button
(use always, everywhere)
peril-sensitive sunglasses
(you've got to see these)
a microscopic space fleet
(indescribable)
some hilarious advertising
(less than indescribable)
an instruction manual
(really outstanding)

a disk, reference card, and an order form for a hint book that quitters can send for. Oh, yes, the box also contains no tea. Stated that way, the box "contains" a lot more, but don't waste your time looking for it.

[Aside: As I enjoyed all of this stuff, I couldn't help but remember how disappointed I was on noting that the 520ST comes in a plain white box with simple black lettering. Why should I care? The box is for throwing away after you extract the goodies. Madison Ave., what have you done to me? Do you know anyone else who spends money, or not, depending on how the box looks? I honestly don't think I would have gotten a 130XE if it didn't come in a colorful box with lots of info on it about all the great things I could do with the XE.]

Given my goofy happiness over the packaging, you can imagine how ecstatic I was when the product itself lived up to its advertised image. This is a <u>great</u> "game".

For those who do not know, this is not a game in the arcade sense. No graphics. Just a screen full of text as you proceed. The story prompts and you react. And it reacts, sometimes in hilarious and unpredictable ways, other times in frustrating ways. This is what is called "interactive fiction". You are a character; you play a role in the story as it proceeds. In this one, you have to feel your way along more than some, because the object

of this game is not explained. You find out as you wend your way through it. Maybe.

I'm not through it, and happy that I am not. I'll hate to see this one end. My present score is about 80 of a possible 400 points, in about 100 turns. Each response is a turn, and the 100 represents my latest foray without getting killed. Counting all the times I got killed, I must have completed about 600 turns so far. A good tip: if you might get killed on your next turn, save your present status before you take the risky turn. Though this is pointed out in the manual, I learned it the hard way having been killed by a flying brick from the destruction of the house at least a dozen times.

Which reminds me. The advertising is responsible, in part. There is an object that you are led to believe that you must have (and later, you must) but to take it too early is fatal. No more tips. Really. I don't want to spoil your frustration.

OK, OK, just one more. Study every word. Look for meaning everywhere. One stupid word very, very early on was meaningful much later. Just the repeat of one little word in the text, long after I had forgotten it, was the clue to solving a knotty problem.

Trouble with tips is they're like peanuts. So have another. Use the "script" command if you have a printer. This prints out all of the story as you go along. Very helpful for looking back to see where you went wrong so you can do it over. And over. Again.

So that you don't think I have spoiled anything for you, I will tell you that the instruction manual includes nine tips for novices. What I said above is largely covered in the manual.

Just for laughs, some puzzles don't need to be solved at all. I am wrestling lately with a nice one, trying to show a door that I have some intelligence. That's right, a door. (Whoever just said, "I can see the door's point of view," can stop here!) I expect to decide that this is one of the puzzles that does not need to be solved. Either that or go mad.

This was my first piece of interactive software, and I hope you can tell that I find it mind boggling. Once in a while I just sit back and am amazed that somebody could program something like this. Often I laugh out loud at the outrageous script, the very humorous, surprising responses. So, let me give credit to two very creative people: Douglas Adams and Steve Meretzky. Adams wrote the novel of the same name and also collaborated on the software with Meretzky, who is the genius responsible for the programming. By the way, there are now four books in the Hitchhiker's trilogy (that's right, trilogy) and all of them are available in paperback. I have read none. I just don't like science fiction. The fact that I love this story should tell you something.

Infocom, Inc. lets the buyer know the difficulty level of each story. Hitchhiker is "standard" level. Below this is an introductory level, and above standard come advanced and expert. I'm not ready yet.

But I'm sold. More than the advertising and more than the packaging, the content here has guaranteed Infocom some repeat business. I especially look forward to trying one of their detective stories.

As for you, if you haven't tried interactive fiction or one of Infocom's products, I think you will really enjoy this one. I certainly wouldn't want to exaggerate, but take it from me this is the best thing to come out of Cambridge, Massachusetts since 1956 (the year I left).

DON'T PANIC!

B/GRAPH

Batteries Included

Reviewed by Ann McBain Ezzell

My first introduction to a Batteries Included product was Russ Wetmore's HomePak, and, quite frankly, I was less than impressed. It struck me as a set of utilities masquerading as a video game, with all those fancy colors, fonts and sound effects. Then I saw their word processor PaperClip, and I began to develop some respect for this company. Now that I have seen B/GRAPH, I'm ready to admit that these people really seem to know what they're doing. In spite of being written in BASIC, this graphics and statistics package works smoothly and efficiently, and is so loaded with features that I'm going to have a hard time even touching on the major ones in the space available.

The B/GRAPH manual, which I would rate as being on a par with the PaperClip manual, consists mainly of a series of detailed tutorials covering the program's many abilities. There are some typographical errors, and a couple mixups in the labelling of illustrations, but for the most part it provides thorough instructions for use of the program. Included are appendices covering photographing the screen, color production through artifacting, and a bibliography of statistical references for those wishing to learn more about the subject. There are also descriptions of the various files on the two B/GRAPH disks and a quick reference guide, but no index.

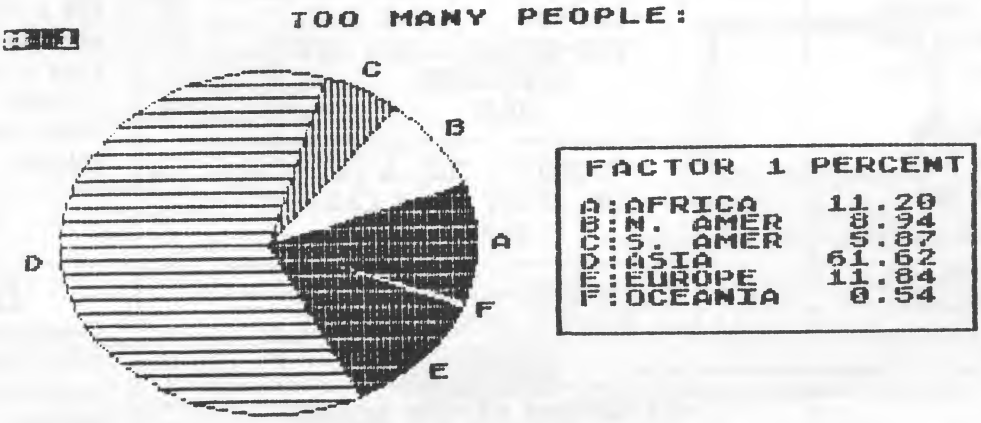
I would expect that most Atari owners who buy B/GRAPH would do so for its abilities in creating and printing graphs. You can display your data (up to three independent factors) on point graphs, line graphs, bar charts and pie charts, each with assorted variations. Your graphs can be rescaled, filled in, and labelled in as many ways as you can think of. B/GRAPH even includes the ability to use combinations of character sets for graph labelling, and provides several sample fonts on the disk. (How many programs have you seen that provide you with Hebrew, Russian, Katakana and Inuit characters? I told you this thing had a lot of features!) There is a separate BASIC program which will rotate any font through 90 degrees so that you can put vertical labels up the sides of your graphs.

Once you have created your masterpiece, you have the option of printing out a hardcopy (most common printers are supported) or saving the image to disk. Graphs can be saved in two forms, so that they can later be used by B/GRAPH for display purposes, or used with a word processor (such as PaperClip) which allows printing of graphics files. You can also create a "slide show" of your images which can later be manually or automatically displayed.

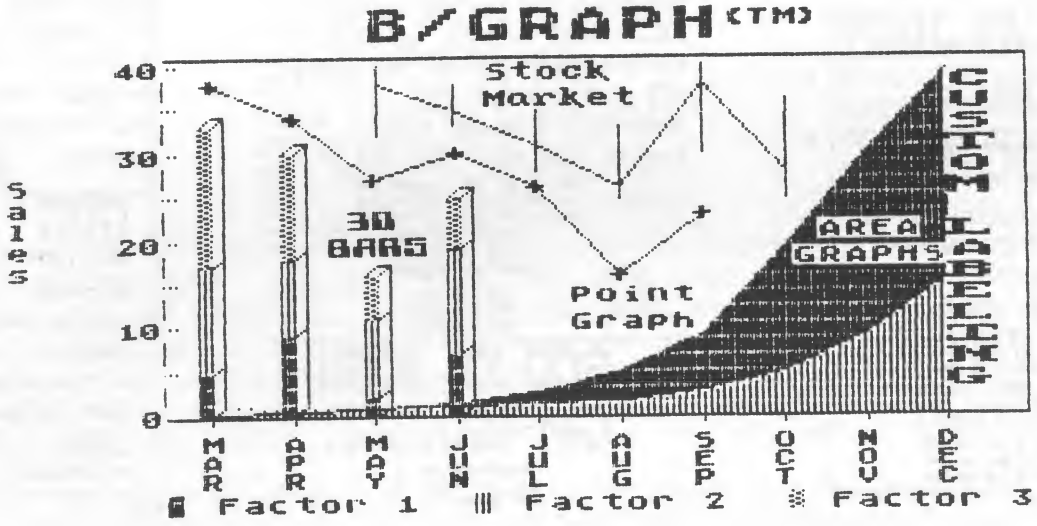
People who think that "Chi-Square" is some sort of fraternity for nerds will probably settle for using the graphing part of B/GRAPH and be quite content with it. If you are more interested in statistics, however, this program will provide you with assistance in performing t-tests, f-tests and chi square tests, calculating variance and standard deviation, doing linear regression, and all sorts of other number crunching functions which are beyond my limited knowledge of statistics. Working through the tutorial will give you an introduction to these topics, but for complete understanding you will probably have to consult one of the sources listed in the bibliography.

So should you rush right out and add B/GRAPH to your library? Like most specialized programs, this one is bound to have a limited appeal, but if you need to produce professional looking graphs and charts on your Atari, or you have some unruly data which just won't fit a standard curve, by all means take a look at this product. It does what it sets out to do with a minimum of fuss, which is more than can be said for a lot of programs out there today. You probably won't use it every day, but when you need it, you'll be very glad to have it.

B/GRAPH will run on any 8-bit Atari computer with at least 48K. BASIC is required. Microsoft BASIC is not supported, but you can use OSS's BASIC XL in conjunction with DOX XL for an increase in operating speed. A second disk drive and a printer are recommended for complete utilization of B/GRAPH's features.



1979 WORLD CENSUS



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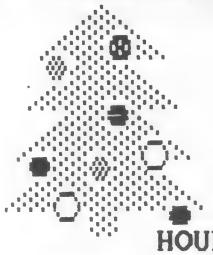

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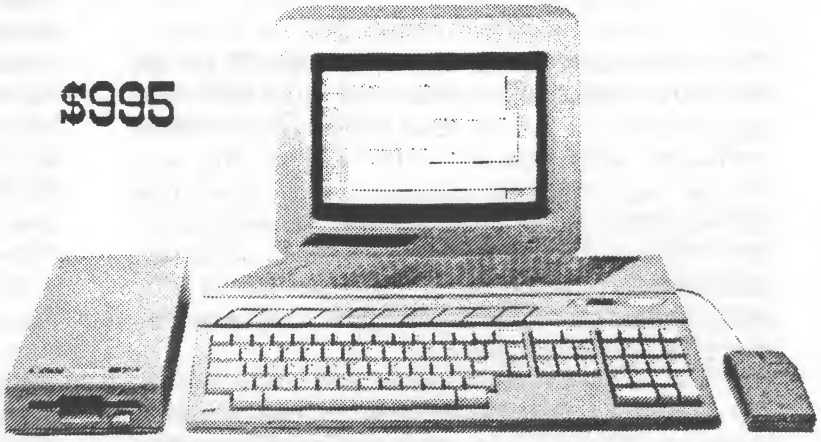

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NEOCHROME V0.5

Reviewed by Jim Steinbrecher
and Mike Lechkun

One of the complaints about the new ST series of Atari computers is the dearth of software now available. But as time goes by, much more software will appear - that's just the way things happen in the computer biz. Atari has contributed to the ever-increasing number of ST titles with its graphics program NEOchrome. NEOchrome will serve as the model that all future graphics programs for the ST's will be judged by.

We won't go into the details of the program; there is a very complete documentation file available. We will point out a couple of observations we've made. Jim has had an ST in his store and has had many chances to work with it. I, on the other hand, have had just a couple of hours in his store to play with it. After just glancing at the documentation for bits & pieces of information, I was ready to start drawing (and did!).

The program uses the low-res color mode. There is a palette of 16 colors you can choose for your drawings: black (the default background), white (the default cursor color - both of which are changeable), and 14 others. Although 512 colors can be created with the ST, only 16 can be used concurrently in low-res mode.

In the screen pictured below, the three digit number to the center just under the palette is assigned to the color you are currently using. The numbers (called the mixer) are based on the intensity of red, green, and blue, respectively, from 0 to 7. Funny, that seems to add up to 778 possible colors, but there are probably duplications that account for the difference between 778 and 512. I also noticed that the colors 000, 111, 222, 333, 444, 555, 666, and 777 are shades of gray from black to white. Ought to be useful for some graphic artists out there.

I personally hate mice. If it were my choice, the program would include joystick and/or touch tablet input as well. There's a hint for you, Atari. Given this prejudice, however, I found the mouse a flexible and easy to use drawing instrument for NEOchrome. Just select a color from the palette and draw away! Your drawing will show in the top half of the screen, and will also be magnified in the window in the bottom half center. You will have to pull the menu and icons away to view your drawing on the bottom half of the screen. But you lose the magnify window by doing this. So, by selecting the "mitt" icon, you can drag the bottom half up towards the top and still have the magnify window available. Select full-screen again and it's back to its original location.

We both liked the dramatic "undo" command. The pouring paint can icon is used to signify the "fill" command. When we went to fill an enclosed area, we found out it wasn't completely enclosed. Virtually the whole screen was filled with a color we didn't want. By immediately selecting "undo" we were put back to where we were previously to fix the mistake. Had we changed our minds and liked the mis-filled color after all, we could have used the "undo" to undo the previous undo!

Text can be added to any picture at any time. A number of different fonts and sizes are available. See the menu sample below, where the add-text window is shown.

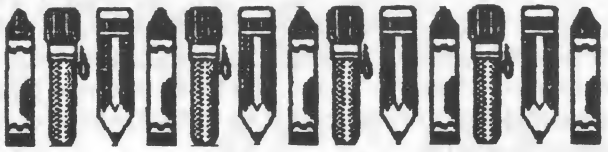
Any screen can be dumped to a graphics-capable printer. Even the menu screen can be dumped. We used a Legend 880 printer for the dump below. Make sure the cursor/icon (be it pencil, paint can, mitt, etc.) is out of the picture. Otherwise it will appear in the dump as well.

Criticisms: NEOchrome is not finished yet. But that's good. If there's something you don't like or would like to see, get on the phone to Atari! That's the reason for the five empty boxes in the icon area of the menu screen. To access any NEOchrome drawing you've made previously, the file must have the extender ".NEO". When saving a picture, the default name "PICTURE.NEO" immediately comes up - you must change it to better describe your picture. But what happens if you forget? And what happens if you have forgotten before, on the same disk? I hope

there's a routine that keeps you from doing just that. When using the slide show program (separate from NEOchrome, but also available from CompuServe or Atari's BBS), all pictures need the ".PIC" extender. Just one standard extender for both programs would have been fine.

And finally, one of the most important considerations, the price: nearly nothing. We say nearly because to download it from CompuServe or the Atari BBS, it will cost you on your phone bill. But that's it - it's public domain from Atari. The auxiliary slide show program is also public domain. Most good computer stores (like Jim's) will throw them in at no extra charge when you buy your ST. Make sure you are using a telecommunications program that will properly download the file. The eight-bit Atari's will not d/l with HomePack or any version of Amodem (the eight bit Atari return code is not standard).

With other graphics programs following shortly (such as Batteries Included's Degas), NEOchrome is a real good start for your graphics library.



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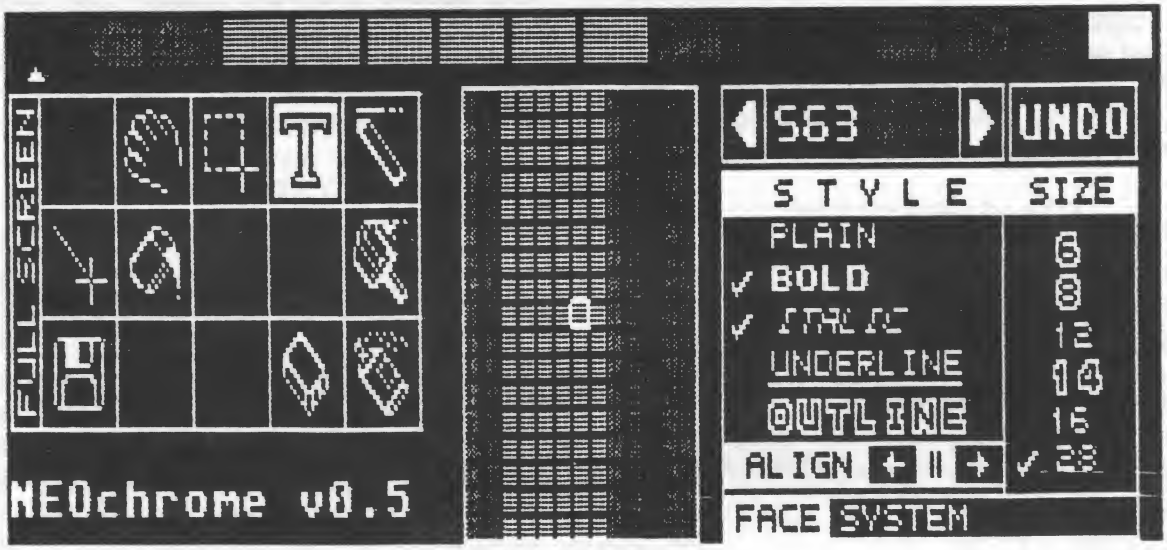
FOR USE: The Clone BBS now runs a full Atari 520ST area for information and files. (313) 882-7104. 300/1200/2400 bps. Sysop is former MACE President Kirk Revitzer.



800XL
BASIC DISABLER

(MILE HIGH ATARI Newsletter 8/85)

This article is for those of you who load binary files with an AUTORUN.SYS menu loader. This will explain how to boot them without holding down the OPTION button.

The XL series enables and disables BASIC at address hex $D301, decimal 54017. The 400/800 series uses this address for input from joyports #3 and #4. The XL series uses this for a variety of different things. For example, bit 0 at hex $D301 says the operating ROM is active or you are using RAM below it. Bit 1 says BASIC is enabled or disabled. One of the other bits at this address tells if the diagnostic ROM is enabled or disabled. The normal values for $D301 are $FF (BASIC disabled) and $FD (BASIC enabled). All we have to do is add some instructions to the loader program to access RAM, not BASIC, thus ridding you of holding down the OPTION button to load binary files. If you're into machine code you might try this:

```
LDA #$FF
STA $D301
```

or since ATARI files can have multiple segments (each having its own start and run address) and all files start with two $FF bytes, you could specify that a file starts at $D301 and ends at $D301, and consists of only one byte, $FF. This would put an $FF byte at $D301, enabling RAM and disabling BASIC. However, there is an easier way (of course!!).

FOR ATARI DOS 2.0S

1. Boot DOS while holding the OPTION button (last time you'll need to do this).
2. Place AUTORUN.SYS in the drive.
3. Hit the 'E' option to rename the loader. Ex: AUTORUN.SYS,AUTORUN.OLD.
4. Hit the 'K' option to binary save AUTORUN.SYS at starting address of $D301 and ending address of $D301.
Ex: AUTORUN.SYS,D301,D301
5. Last, hit the 'C' option to copy a file. This will be used to append AUTORUN.OLD to the just saved AUTORUN.SYS file.
Ex: AUTORUN.OLD,AUTORUN.SYS/A

FOR OSA+ or DOS XL

1. Boot DOS while holding OPTION. For the DOS XL menu hit 'Q'.
2. Put AUTORUN.SYS file in drive.
3. Type: RENAME AUTORUN.SYS AUTORUN.OLD
4. Type: SAVE AUTORUN.SYS,D301,D301
5. Type: COPY -AF AUTORUN.OLD AUTORUN.SYS

You now have an AUTORUN.SYS that will load any binary file without the pesky OPTION button.

MACE SIG-ED UPDATE

By Mark Kennedy

The Autumn meetings of the Educational group met in Mount Clemens and centered around two interesting items. The first, the Atari Lab allows both time and temperature to be measured, recorded and charted. This was an enjoyable item to "play" with and seemed to be an excellent introduction to interfacing to the outside world.

The second program, called The Logo Poet, gave everyone pause to ponder the English language as it synthesized such things as:

A woolly witch
One witch slowly whispers over the wicked werewolf
Wretched witty werewolf

Cycles. Future meetings are scheduled for February and April. Anyone with an interest in education is welcome. We are interested in hearing from anyone with a favorite microworld (like Robot Odyssey, Rocky's Boots, Lode Runner... hint, hint) that he or she might like to demonstrate at these meetings. Contact Mark Kennedy, 465-5849 (evenings) or write to:

155 Cass Avenue
Mount Clemens, MI 48043.

ACTION!
INPUT ROUTINES

By Ann McBain Ezzell

The ACTION! cartridge includes some library routines to handle string input, including one called InputMD() which is supposed to input a string of up to a specified number of characters, truncating the string if it is too long. Unfortunately, this procedure doesn't work properly, and an error results if you enter a string which is too long. While working on a program which involves a lot of keyboard input of strings, I developed some procedures which will check the length of string input and indicate that an improper entry has occurred. Feel free to use these procedures or modify them for your own purposes. I have included rather detailed descriptions of the procedures in the hope that other beginning ACTION! programmers might find them useful.

First, there are a few global variables. Because of the way ACTION! handles its variables, declaring

```
BYTE RowCrs=84
```

means that a reference to RowCrs will actually be a reference to the value contained in location 84, which happens to be the current cursor row position.

[Remember that rows are horizontal and can range in value from 0 (top) to 191 (bottom), depending on the graphics mode. Columns are vertical and can range from 0 (left) to 319 (right), again depending on the graphics mode.]

To assign a numeric value to a variable, you must use the form:

```
BYTE Num=[10]
```

This method of addressing variables may be confusing at first, especially to someone used to programming in BASIC, but allows some very powerful manipulation of variables.

ColCrs is declared as a CARD (two byte number) because it will contain the current cursor column position (0-319), and a BYTE can only hold values up to 255. The declaration

```
CARD ColCrs=85
```

means that ColCrs will hold the value contained in the two locations 85 and 86, taken in low byte, high byte order. (The value in 85 plus 256 times the value in 86.)

The global BYTE ARRAY (or CHAR ARRAY) Temp is dimensioned to 40 because, quite frankly, that seemed like a nice round number. (I figured people wouldn't be likely to input something longer than a screen line.) You could choose the string length to be whatever you want, as long as you are sure that any input strings will always fit in the available space (include the carriage return in the allowed length). ACTION! doesn't care if you try to store a string that is longer than its dimensioned length; it will obligingly start at the beginning address of the string and store however many characters you give it, perhaps wiping out some other important information along the way. It is up to you to dimension your strings properly to avoid such calamities.

[A word of warning - I have wiped out DOS, put holes in my files, locked up the keyboard, and even had the computer growl at me in the course of trying to learn how to handle strings. As far as I can tell, your best bet is to dimension your strings wherever possible and be very careful when you do things like trying to change their lengths.]

The main string input procedure is InMaxD(), but first we need a few supporting procedures. The first of these could easily be omitted, but I included it to draw attention to the fact that too long a string has been entered. Two versions of Flash() are included, to show you two ways of writing loops. If you check the value in $493 (codeSize) after compiling each of these procedures, you will see that Flash() occupies 66 bytes, while Flash2() requires only 60. When you are using constants as the delimiters of a loop, using a FOR loop structure appears to save some memory over a WHILE DO loop. However, when using a variable as a loop delimiter (as in the Blank() and Blank2() procedures), the WHILE DO loop will save you some bytes.

M.A.C.E.
RECEIPTS AND DISBURSEMENTS
1/1/85 TO 11/30/85

RECEIPTS

MEMBERSHIP	$ 14 434.00
DISK LIBRARY & BLANKS	10 464.00
CASSETTE LIBRARY	517.25
ADVERTISING	1 607.36
MISCELLANEOUS	1 329.11
TOTAL	$ 28 351.72

DISBURSEMENTS

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JOURNAL POSTAGE	1 087.00
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TOTAL	$ 28 010.95

NET RESULTS	$ 340.77

Both Flash() procedures declare some local variables: an INTeger counter i and two BYTEs, color4 and holdcolor. (Note that procedure and global variable names start with a capital letter, local variable names start with a lower case letter, and ACTION! keywords are all in caps.) The BYTE color4 refers to the value in location 712, which is the color of the border in Graphics 0. If you want to change the color of a different register, change the declared value of this variable. holdcolor is simply a dummy byte to store the original border color.

In Flash(), i is set to 2000, the value in color4 is stored in holdcolor, color4 is set to 14 (white), and the procedure loops, decrementing i until it reaches zero.

```
WHILE i
 DO
 <statements>
 OD
```

is the same as saying "while the value of i is nonzero, execute the following statements". Finally, color4 is reset to the value stored in holdcolor, and control returns to the calling procedure. Note the difference in the statements referring to color4. In the variable declaration,

```
BYTE color4=712
```

means "make color4 refer to the value in location 712", while

```
color4=14
```

within the procedure means "store 14 in the location referred to by color4". For BASIC programmers, the equivalent statements would be COLOR4=712 and POKE COLOR4,14.

What if you set the initial value of i when it is declared?

```
INT i=[2000]
```

The first time Flash() is called, the value of i will be 2000, and the procedure will work properly, decrementing i until it reaches zero. However, the value will not be reset (as it will with a FOR loop), so the next time you call Flash(), the delaying WHILE loop will be skipped (because i is not nonzero), and the color changes will occur so quickly that you won't see them. (Want to guess how I discovered this?) So, if you change the value of a variable within a procedure but always want the same initial value, be sure to set the value within the procedure itself, not just when you declare the variable. You could also write the procedure so that the value is passed as a parameter, which would allow you to use different initial values. Since I wanted a constant flash delay, I set the value within the procedure.

The next three procedures are simply different ways of doing the same thing. BlankD() (41 bytes) and BlankD2() (51 bytes) show two ways of writing a loop to output a given number of blanks to a specified device, which would normally be the screen, but could be the printer or disk if you wanted to pad on some leading or trailing spaces. The number of blanks to be printed is passed in the parameter "blanks".

Blank() calls BlankD() with "device" as the channel. "device" is an ACTION! library variable which allows you to control the default I/O channel. It is normally zero, which is the channel for the screen editor (E:). Thus, calling Blank() will automatically choose the default device for output of the blanks. Unless you have changed the value of "device" in some other procedure, output will go to the screen. Many of the ACTION! ToolKit routines are written in this way, so that devices other than E: can easily be accessed.

The procedure Oops() is passed the cursor location (column and row) of the beginning of the input and the length of the incorrect string. (InMaxD() stores the cursor locations in temprow and tempcol before accepting input, then passes these to Oops() if an entry is too long.) This allows Oops() to reset the cursor to the beginning of the string, flash the screen border, blank out the string, and reposition the cursor for another input attempt. The cursor is set one position to the right of its original position, then Put(30) is used to move it to the left. Otherwise, the visible cursor will remain at the end of the erased word until a new string is entered.

Now we come to InMaxD() and InMax(), the main procedures. As explained above, InMaxD() will accept input from a specified channel, while InMax() chooses the default "device" for input. Looking at InMaxD(), you will see that it is an infinite DO loop, with an EXIT only if the string meets the length requirements. InMaxD() is passed three parameters: the channel for input, a BYTE POINTER which is actually the address of the string to be input, and a BYTE specifying the maximum string length. Within the loop, the intial cursor location is first stored in temprow and tempcol for possible use by Oops(), then the library procedure InputSD() is used to input a string and store it in the global BYTE ARRAY Temp.

The first (actually, zeroth) element of an ACTION! BYTE ARRAY used as a string contains the length of that string. Thus

```
IF Temp(0)>max THEN
  Oops(tempcol,temprow,Temp(0)
```

compares the length of Temp with the maximum allowable length, and calls Oops() if Temp is too long. Temp(0), the length of Temp, is passed so that Blank() will know how many characters must be erased. After returning from Oops(), InMaxD() will continue to loop until a sufficiently short string is input. When the length of Temp is less than or equal to max, Temp is copied into the memory location pointed to by str (remember that str is a BYTE POINTER which points to the string to be input) using SCopyS, another ACTION! library procedure. The procedure then EXITs from the DO loop, and control returns to the calling procedure.

This procedure shows the use of a very powerful structure available in ACTION!:

```
IF <expression> THEN
  <statements>
ELSE
  <statements>
FI
```

If the expression following the "IF" is true, the first set of statements will be executed, then the program will jump to whatever follows the "FI". If the expression is false, the statements following the "ELSE" will be executed, then whatever follows the "FI". ACTION! also allows inclusion of

```
ELSEIF <expression> THEN
  <statements>
```

within the IF...FI structure, which will let you test more than one expression. In BASIC, this sort of structure would require multiple IF...THEN statements, probably with GOTOs at the end of each to jump to the continuation of the program, and would likely leave your program a convoluted mess.

You can use InMaxD() or InMax() in your own procedures wherever you need to limit the length of the input. For example, you might be writing a mailing list program which would allocate a certain number of characters for each item. In such a case, you might also want to write a procedure which would indicate on the screen the exact number of characters available for each input (by underlining, or printing inverse video blanks).

The next two procedures show another use of InMaxD(). I needed to be able to input a number which fell within a certain range of values. The ACTION! library input functions like InputB() and InputC() simply take whatever input is given and treat it as a BYTE or a CARD, regardless of whether the user has entered a letter, number, or carriage return. Since I wanted a routine which would do some error checking, I decided to treat the input as a string initially and convert it to numeric form after checking that all elements of the string were in fact digits.

GetNumD() and GetNum() are CARDinal funtions; that is, they can return a value from 0 to 65,535. They could also be written as BYTE or INTeger functions, depending on the desired use. The local BYTE ARRAY numstr is dimensioned to 6 so that it will be able to hold up to five characters plus the length byte, which will be long enough for any CARD value.

Like InMaxD(), GetNumD() is an infinite DO loop which continues to execute until a valid entry is obtained. First the current cursor location is stored in the local variables temprow and tempcol, then InMaxD() is called

to enter a string of up to 5 characters. After returning from InMaxD(), the procedure checks the length of the input string and rejects it if it is zero, because I didn't want to allow a carriage return as a valid input to GetNumD(). (This check could also be made within InMaxD(), but I wanted that procedure to be as flexible as possible.)

If the length of numstr isn't zero, the statements following the "ELSE" are executed. Each character in the string is checked to see if it is a digit by checking its ATASCII value. If a non-digit is found, the procedure calls Oops() and then exits from this internal loop. If all characters are digits, the program will finish the loop, and ctr will equal len+1. The followng IF statement checks the value of ctr, and converts the string to a CARD using the ValC() library function only if no non-digits have been found. If a non-digit has been entered, the procedure will fall through to the OD and start over at the top of the external DO loop.

After numstr is converted to cd, the value of cd is checked to see if it falls within the range set by the parameters lo and hi which were passed to GetNumD(). If so, the procedure exits from the DO loop and returns the value of cd to the calling procedure. If cd is not within the given range, Oops() rejects the entry and the whole procedure starts over again.

All of this may seem rather elaborate and unnecessary when all you accomplish is inputting a number, but if you are writing programs which will be used by people who might not be as careful as you always are, you will find that it pays to make your input procedures as foolproof as possible. ACTION! is a very powerful language, but it is very trusting when it comes to input - it tends to assume that you know what you are doing.

```
;** global variables **

BYTE RowCrs=84      ;current cursor row

CARD ColCrs=85      ;current cursor
                    ;column

BYTE ARRAY Temp(40);dummy input string
```

```
;** flash border color **

PROC Flash()

  BYTE color4=712, ;color register 4
       holdcolor   ;hold orig. value
  INT  i           ;counter

  i=2000
  holdcolor=color4
  color4=14        ;make border white
  WHILE i
    DO
    i==-1
    OD
  color4=holdcolor ;reset border
RETURN

PROC Flash2()

  BYTE color4=712, ;color register 4
       holdcolor   ;hold orig. value
  INT  i           ;counter

  holdcolor=color4
  color4=14        ;make border white
  FOR i=1 TO 2000
    DO
    OD
  color4=holdcolor ;reset border
RETURN

;** print blank spaces **
;**   (erase errors)   **

PROC BlankD(BYTE chan,blanks)

  WHILE blanks
    DO
    PutD(chan,32)  ;32 = blank
    blanks==-1
    OD
RETURN

PROC BlankD2(BYTE chan,blanks)

  BYTE ctr         ;counter for loop

  FOR ctr=1 TO blanks
    DO
    PutD(chan,32)  ;32 = blank
    OD
RETURN
```

```
PROC Blank(BYTE blanks)

  BlankD(device,blanks)
RETURN

;** input error routine **

PROC Oops(CARD tempcol,
          BYTE temprow,len)

  ColCrs=tempcol
  RowCrs=temprow
  Flash()
  Blank(len)
  ColCrs=tempcol+1
  Put(30)           ;30 = left arrow
RETURN

;** input string of maximum length **
;**     from specified channel     **

PROC InMaxD(BYTE chan,
            BYTE POINTER str,
            BYTE max)

  BYTE len,
       temprow     ;holders for
  CARD tempcol     ;temporary values

  DO
    temprow=RowCrs
    tempcol=ColCrs
    InputSD(chan,Temp)
    IF Temp(0)>max THEN
      Oops(tempcol,temprow,Temp(0))
    ELSE
      len=Temp(0)
      SCopyS(str,Temp,1,len)
      EXIT
    FI
  OD
RETURN

PROC InMax(BYTE POINTER str,
           BYTE max)

  InMaxD(device,str,max)
RETURN

;** get a number within a **
;**  set range of values  **

CARD FUNC GetNumD(BYTE chan,
                  CARD lo,hi)

  BYTE temprow,len,ctr,c
  BYTE ARRAY numstr(6) ;input number
                       ;as string
  CARD tempcol,cd

  DO
    temprow=RowCrs
    tempcol=ColCrs
    InMaxD(chan,numstr,5)
    len=numstr(0)
    IF len=0 THEN      ;throw out CR
      Oops(tempcol,temprow,len)
    ELSE
      FOR ctr=1 TO len ;check each
                       ;character -
                       ;is it a digit?
        DO
          c=numstr(ctr)
          IF (c<'0) OR (c>'9) THEN
            Oops(tempcol,temprow,len)
            EXIT
          FI
        OD
        IF ctr>len THEN  ;got through
                         ;loop without
                         ;finding
                         ;nondigit
          cd=VAlC(numstr)
          IF cd>=lo AND cd<=hi THEN
            EXIT
          ELSE           ;not in range
            Oops(tempcol,temprow,len)
          FI
        FI
      FI
  OD
RETURN(cd)

CARD FUNC GetNum(CARD lo,hi)

  CARD cd

  cd=GetNumD(device,lo,hi)
RETURN(cd)
```

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MURPHY'S LAWS
AS APPLIED TO
COMPUTERS AND TECHNOLOGY

Compiled by Daniel Reid
(ABACUS November 1985)

I think it's time we had some humor in this newsletter. So I've decided to write about my hero, Murphy. Before you read the rest of this article, there are two important things you MUST understand!

1) Murphy was an optimist.

2) Murphy's best friend was a computer.

Now that you've read that, it's time for Murphy's Laws on Technology.

1) Logic is a systematic method of coming to the wrong conclusion with confidence.

2) If builders built buildings like programmers write programs, the first woodpecker that came along could destroy all of civilization.

3) The attention span of a computer is only as long as its power cord.

4) Nothing ever gets built on schedule or within budget. (Atari, Inc.)

5) A unit failure always occurs after the unit has passed final inspection.

6) New systems create new problems.

7) To err is human; to really foul things up requires a computer. (The classic!)

8) Any program that runs is obsolete.

9) There is no visible difference between advanced technology and magic.

10) If something is not in the computer, it doesn't exist.

11) If several things can go wrong, the one that will cause the most damage happens.

12) If something can go wrong, it will.

13) When a system that even a fool can use is created, only a fool will want to use it.

14) It works better if you plug it in.

15) Any modification made to a program by the programmer will be exactly the opposite of what the users wanted.

MAGIC SQUARES

(MICRO OF MONMOUTH
Oct/Nov 1985 Newsletter)

Magic squares are arrays of numbers in which the sum of the numbers in each row, column, or along the diagonal is the same. The ability to create a magic square has entertained people over centuries. Here is a program adapted to the Atari computer that generates a magic square starting with any number. This program works well for screen display with up to seven cells.

In case you are interested, the sum of the rows, columns, and main diagonals is called the magic constant. The formula for the magic constant is:

Magic Constant=n(n squared)+1)/2

For example, in the magic square of 3 (3 by 3 or 9 cells), the magic constant is calculated as follows:

MC=3((3 squared)+1)/2
=3(9+1)/2
=30/2
=15

Magic Constant = 15

Try it, you'll like it and so will the kids.

```
10 REM **********************
11 REM *** MAGIC SQUARE ***
15 REM **********************
100 GRAPHICS 0:? :?
110 DIM M(25,25)
120 PRINT "HOW BIG IS THE MAGIC SQUARE
 -         FOR EXAMPLE, A 5*5 SQUARE W
OULD BE    ENTERED AS 5."
130 INPUT N
133 PRINT
140 PRINT "ENTER STARTING NUMBER"
150 INPUT Y
151 GRAPHICS 0
152 SETCOLOR 2,4,4
153 SETCOLOR 4,12,4
155 LET S=Y
160 PRINT N;" BY ";N;" MAGIC SQUARE ST
ARTING"
161 PRINT "WITH THE NUMBER ";S
170 PRINT
180 LET K=1
190 LET I=1
200 LET J=(N+1)/2
220 LET M(I,J)=S
230 LET S=S+1
270 IF S>N*N+Y-1 THEN 490
290 IF K<N THEN 350
310 LET K=1
320 LET I=I+1
330 GOTO 220
350 LET K=K+1
360 LET I=I-1
370 LET J=J+1
400 IF I<>0 THEN 440
420 LET I=N
430 GOTO 220
440 IF J<=N THEN 220
460 LET J=1
470 GOTO 220
490 FOR ROW=1 TO N
500 FOR COL=1 TO N
510 IF M(ROW,COL)>=10 THEN PRINT M(ROW
,COL);"  ";
515 IF M(ROW,COL)<10 THEN PRINT M(ROW,
COL);"   ";
520 NEXT COL
530 PRINT
540 PRINT
550 PRINT
560 NEXT ROW
570 END
```

GENERAL MEETING

November 19, 1985

By B.J. Franczyk

The meeting started with demonstrations of Karateka and Kung Fu. Dave Heinrich, an Atari representative, then answered questions from the floor. The majority of time was spent on new products and the 1030 Modem. He explained that Atari structured the prices for the ST of $799.00 and $999.00 to eliminate the competitive pricing that did in the old Atari. There was a discussion regarding interest in an ST new users' group.

Scott Garland, the Program Coordinator, asked what the members would like to see at future meetings. The popular consensus was to demonstrate business and utility programs. There was virtually no interest in game programs.

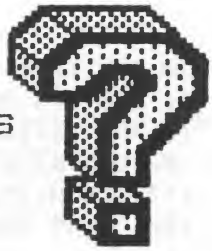
The final discussion was over our equipment problem. Treasurer Burt Gregory explained the cost of repair to the Nova Beam versus purchasing new equipment. The Nova Beam operates with three tubes, two of which need replacing. Each tube would cost $500.00 with a labor charge of approximately $120.00. There was some agreement from the floor to repair the Nova Beam; however, a large group wanted the officers to do some further shopping since Sony and Zenith now have some comparable equipment starting at around $1800.00. The decision was tabled until we could see this new technology.

The meeting was then adjourned.

[PERSONAL NOTE: It is fun to be back. I want you to know that I have accepted the position of Recording Secretary for the duration of this term. At this point, I would like you to know what this position means to me. I will serve on your board of directors, I will work with my fellow officers and I will contribute where and when I can. I will not make promises I cannot keep but most of all I will not walk out on you. I will take the minutes and report them to you with accuracy and efficiency. Thank you for your support. I am looking forward to a very productive year.]

SURVEYS

By P.R. Wheeler



In the latest issue of Antic, they reported the results of a survey made several months earlier. The results were very interesting. For example, their readers own more 800XL's then any other Atari computer, disk drive owners jumped to a very impressing 91%, printer owners were 77%, and modems were owned by 44% of those responding to the questionnaire.

The survey allows this fine publication to better serve its readers by providing programs and articles indicated as most wanted. From the results of their survey, they know that 33% have 800XL, 25% 800, 15% 520ST, 11% 130XE, 10% 400, and the balance spread between the 600XL and the 1200XL.

After reading this article, I feel that a similar survey of the members of MACE should be conducted, so that we too can better serve the membership. I know, from the first time I signed up (1981), the 800 and tape deck that I owned have changed considerably, and I know this must be the case for the majority of our membership.

Look for a membership questionnaire in the next issue of the Journal and please respond, so that your officers might be informed as to your needs and wishes, and will be able to provide better service.

I want to wish the membership the best of Holiday Happiness and hope Santa brings you that special goodie that you want.

MACE BBS NEWS

Please note the new number for MACE East:

(313) 585-2165

Hardware Coordinator Mike ("Keeper of the Beam") Landis will be the new sysop.

MACE West will remain at (313) 582-0657 in the capable hands of Corresponding Secretary Sharie Middlebrook.

M. A. C. E.

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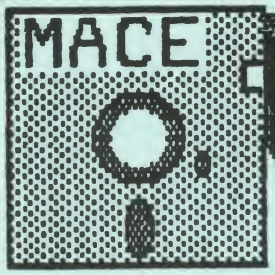

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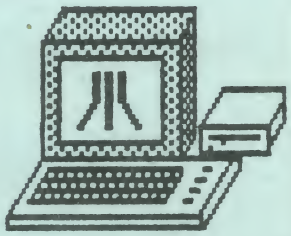

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